

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 10/810,830

Atty Docket: Q86 745

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A magnetic recording medium comprising a magnetic layer comprising a ferromagnetic powder and a binder, wherein

said binder ~~comprises~~ consists of polyurethane resin having a glass transition temperature ranging from 100 to 200 °C,

said magnetic layer has a thickness equal to or less than 0.15 µm,

said ferromagnetic powder has a mean major axis length or a mean plate diameter equal to or less than 60 nm, and

said magnetic layer has a coercivity (H_c) ranging from 159 to 239 kA/m in a longitudinal direction or an in-plane direction.

2. (currently amended): A magnetic recording medium comprising a nonmagnetic layer comprising a nonmagnetic powder and a binder and a magnetic layer comprising a ferromagnetic powder and a binder in this order on a nonmagnetic support, wherein

at least the binder ~~comprises~~ in said magnetic layer ~~comprises~~ consists of polyurethane resin having a glass transition temperature ranging from 100 to 200 °C,

said magnetic layer has a thickness equal to or less than 0.15 µm,

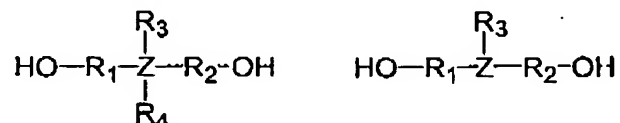
said ferromagnetic powder has a mean major axis length or a mean plate diameter equal to or less than 60 nm, and

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said magnetic layer has a coercivity (H_c) ranging from 159 to 239 kA/m in a longitudinal direction or an in-plane direction.

3. (original): The magnetic recording medium according to claim 1 or 2, wherein said polyurethane resin is obtained by using a diol compound represented by the following general formula:



(where Z is a ring structure selected from the group consisting of a cyclohexane ring, a benzene ring, and a naphthalene ring, R₁ and R₂ are respectively an alkylene group having 1 to 18 carbon atoms, and R₃ and R₄ are respectively an alkyl group having 2 to 18 carbon atoms.)

4. (original): The magnetic recording medium according to claim 1 or 2, wherein said polyurethane resin has a urethane group concentration ranging from 2.5 to 6.0 mmol/g.

5. (original): The magnetic recording medium according to claim 1 or 2, wherein said polyurethane resin has a weight average molecular weight (M_w) ranging from 30,000 to 200,000.

6. (original): The magnetic recording medium according to claim 1 or 2, wherein the polyurethane resin comprises at least one polar group selected from the group consisting of -SO₃M, -OSO₃M, -PO₃M₂, and -COOM (wherein M is selected from the group consisting of a hydrogen atom, alkali metal and ammonium) in an amount of 1×10⁻⁵ to 2×10⁻⁴ eq/g.

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7. (original): The magnetic recording medium according to claim 1 or 2, wherein said polyurethane resin has a glass transition temperature ranging from 120 to 170 °C.

8. (original): The magnetic recording medium according to claim 1 or 2, wherein said magnetic layer has a thickness ranging from 20 to 100 nm.

9. (currently amended): The magnetic recording medium according to claim 1 or 2, wherein said magnetic layer has a coercivity ranging from 159 to 207 kA/m in a the longitudinal direction or in-plane direction.

10. (original): The magnetic recording medium according to claim 1 or 2, wherein said ferromagnetic powder has a mean major axis length or a mean plate diameter ranging from 10 to 50 nm.